## **ABSTRACT**

An electromechanical valve assembly 46 for an internal combustion engine 36 is provided. The valve assembly 46 includes a rotor 68 centered about a first axis 122 having a bore 114 extending generally axially therethrough. The valve assembly 46 further includes a stator 66 operatively disposed about the rotor 68 for producing a torque to cause rotation of the rotor 68 about the axis 122. Finally, the valve assembly 46 includes a valve 70 having a valve stem 126 and a valve head 84. The valve stem 126 extends generally axially through the bore 114 of the rotor 68. The valve stem 126 is also configured to move generally axially responsive to the rotation of the rotor 68 to selectively engage and disengage the valve head 84 with a valve seat 124 of the engine 36.

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